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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TRAIL, ALLYSON NEEL

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/693,626

Applicant(s)

GERST ET AL.

Examiner

Allyson N. Trail

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 23-35 is/are rejected.
- 7) ☒ Claim(s) 20-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/25/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Amendment

1. Receipt is acknowledged of the Amendment filed September 27, 2005.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3, 5-8, 23, 24, 26-28, and 30-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Lizotte et al (2004/0217173).

In reference to claims 1, 5, 23, 26, 30-32, and 34, Lizotte et al teaches an imaging apparatus 82 suitable for reading indicia. The imaging apparatus may include an illuminator 94, which is constructed as a ring light source. In order for the ring to illuminate the subject, there must be a pipe from which the light is emitted. Explained in paragraph 0099, the ring light source will illuminate the ring surrounding the image area. In other words, the ring is arranged in a perimeter of a predetermined shape (a ring or circular shape). Due to the light clearly defining the perimeter of the image, the field of view of the image sensor is reduced. Additionally, the ring which surrounds the image may act as an aiming aid. With respect to claim 34, paragraph 0060 discloses an

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additional light source, which is used for actually reading the image. This light is clearly a bright field illuminator.

With regards to claims 1, 23, 31, 32, and 34, Lizotte et al teaches in paragraph 0071 that the illuminating mechanism included various positioning and rotational mechanisms to control the angle of incidence of illumination on the subject or image. Therefore because the angle is adjusted, the pipe can produce either a low or high angle, which projects either a dark or bright illumination pattern respectively.

Regarding claims 3, 6, and 24, Lizotte et al teaches the perimeter of the image being illuminated by a "ring" light source. Clearly a "ring" is in the shape of a circle, which is also clearly curved.

Regarding claims 7 and 27, Lizotte et al teaches the shape surrounding the image to be read. In this respect, the shape is defined by the dimensions of the subject.

With respect to claims 8, 28, and 33, Lizotte et al teaches in figures 13A and 13B a handheld scanning appliance, which performs the above functions and uses the above elements (i.e. the light ring and pipe).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 4, 11, 14, 25, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lizotte et al (2004/0217173) in view of Li (2005/0047723).

Lizotte et al's teachings are discussed above (including much of the limitations disclosed in claims 11-13 and 15-18). Lizotte et al fails to specifically teach the different possible shapes of the light pipe, including rectangle and further fails to teach a second light pipe and ring which is coaxial with the first.

Li teaches the following in regards to claims 2, 11, and 35:

Paragraph 0087 discloses that additional light pipes of various shapes may be used to project light onto an image.

Li teaches the following in regards to claims 4, 14, and 25:

"Input surface 1518 of second light pipe 1516 may have, e.g. a rectangular cross-section as shown in FIG. 23a, a square cross-section as shown in FIG. 23b, an elliptical cross-section as shown in FIG. 23c, a circular cross-section as shown in FIG. 23d, an octagonal cross-section as shown in FIG. 23e, a hexagonal cross-section as shown in FIG. 23f, or a polygonal cross-section." (Paragraph 0087).

In view of Li's teachings it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the various shaped light pipes taught by Li's in combination with the image capturing device taught by Lizotte et al. As disclosed by Lizotte et al above, bright and dark field illumination (high and low angle light) are used for different purposes. Therefore one would be motivated to use multiple shaped light pipes to obtain the desired illumination.

6. Claims 9, 10, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lizotte et al (2004/0217173) in view of Patel et al(2003/0080189).

Lizotte et al's teachings are discussed above. Lizotte et al fails to specifically teach a beam to assist aiming the image sensor at the subject.

Patel et al teaches in paragraph 0011, providing illumination and to assist in aiming of an imaging system. Patel et al teaches employing either lasers or light emitting diodes (LEDs) for assistance in aiming the image sensor.

In view of Patel et al's teachings it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an aiming aid as is taught by Patel et al in combination with the image capturing device taught by Lizotte et al. One would be motivated include assistance in aiming in order to clearly depict the object that is to be scanned before the scanning or imaging occurs. An aiming system will help with accuracy.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lizotte et al (2004/0217173) in combination with Li (2005/0047723) and in further view of Patel et al(2003/0080189).

Lizotte et al's teachings in combination with the teachings of Li are discussed above. The combination however fails to specifically teach a beam to assist aiming the image sensor at the subject.

Patel et al teaches in paragraph 0011, providing illumination and to assist in aiming of an imaging system. Patel et al teaches employing either lasers or light emitting diodes (LEDs) for assistance in aiming the image sensor.

In view of Patel et al's teachings it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an aiming aid as is taught by

Patel et al in combination with the image capturing device taught by Lizotte et al. One would be motivated include assistance in aiming in order to clearly depict the object that is to be scanned before the scanning or imaging occurs. An aiming system will help with accuracy.

Allowable Subject Matter

8. Claims 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

The following is an examiner's for allowance: Although Lizotte et al teaches an illuminator for illuminating a subject that is imaged by an image sensor, which includes both a first/second ring and a light pipes, the above identified prior art of record, taken alone, or in combination with any other prior art, fails to teach or fairly suggest the specific limitations of claims 20-22 of the present claimed invention. In particular, prior art does not teach the claimed illuminator wherein each of the first light pipe and the second light pipe are mounted together with a securing ring sized and arranged to secure to a camera assembly. Secondly, prior art fails to teach the illuminator wherein the second ring is nested within the first ring and wherein the tip of the second ring is recessed with respect to the tip of the first ring so as to provide an area in an inner wall of the first ring adjacent of the tip of the first ring for projection of the low-angle dark field illumination pattern therefrom. The above limitations are not disclosed in prior art and moreover, one of ordinary skill in the art would not have been motivated to come to the claimed invention.

Response to Arguments

9. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of the new ground(s) of rejection. It is believed that Lizotte et al clearly teaches the claimed limitations of claims 1-19 and 23-35.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson N. Trail* whose telephone number is (571) 272-2406. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (571) 272-2398. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [allyson.trail@uspto.gov].

All Internet e-mail communications will be made of record in the application file.

PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Allyson N. Trail
Patent Examiner
Art Unit 2876
December 12, 2005



THIEN M. LE
PRIMARY EXAMINER